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ABSTRACT

What is the current role played by schools in helping their students who choose to enter the job market after high school graduation? An examination was made of the role of schools at four critical stages in students' transition to work--the career preparation stage, the job candidate stage, the job entry stage, and the job promotion or job shift stage. The study linked data about jobs from a nationally representative sample of 4,078 employers with National Longitudinal Survey data about the school experiences of young adults who held those jobs. The survey results suggest that the role of education is often very important for jobs that are usually filled by those with college degrees, somewhat less important for jobs filled by those with some college, and surprisingly unimportant for jobs usually filled by high school graduates. For jobs at the high school level, the current role of schools seem weak in terms of the following: (1) job preparation--academic skills are not among the most important traits that employers require, and other important traits are not acquired in most high schools; (2) job recruitment--high school placement services are not frequently used by employers; (3) job entry--current educational information from high schools is not very available, useful, or important to employers in hiring; and job promotion--accomplishments in school have little bearing on who will be promoted in most firms to jobs that do not require a college degree. These findings should be used to help the schools improve their roles in these four areas. (KC)

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Report No. 362

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THE SCHOOL'S ROLE IN THE TRANSITION FROM EDUCATION TO WORK: CURRENT CONDITIONS AND FUTURE PROSPECTS

James M. McPartland, Russell L. Dawkins, and Jomills H. Braddock II

The Johns Hopkins University

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The Center

The Center for Social Organization of Schools (CSOS) has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

CSOS works through various research programs to achieve its objectives. A major effort is devoted to the study of elementary and middle schools under the sponsorship of the Office of Educational Research and Improvement, Department of Education. This work is conducted at CSOS by the Center for Research on Elementary and Middle Schools.

This report examines the role played by schools in preparing students for employment directly after high school graduation and assisting them through the career process.

Abstract

What is the current role played by schools in helping their students who chose to enter the job market after high school graduation? This report examines the role of schools at four critical stages in students' transition to work -- the career preparation stage, the job candidate stage, the job entry stage, and the job promotion or job shift stage. The report links data about jobs from a nationally representative sample of 4078 employers with National Longitudinal Survey data about the school experiences of young adults who held those jobs.

Introduction

Schools can potentially play a powerful role at different stages of the career process in assisting a student's successful transition to work. We will present tabulations from a recent nationally representative sample of 4078 employers to assess the current role of schools at several stages of the career process and discuss possible areas of practical improvements.

At the career preparation stage, schools can provide the training and experiences that help students decide upon their occupational goals and that provide the skills and attitudes to achieve them. The schools' role at this stage is important to employers who require specific skills to fill their job openings and expect the schools to provide the relevant training.

At the job candidate stage, schools can assist students in searching for specific employment opportunities and schools can help employers recruit good prospects for their job openings.

At the job entry stage, schools can provide information about the qualifications of individual applicants, so the applicants can accurately present their strengths on job relevant criteria and employers can make fair, efficient and effective judgments about whom to hire.

At the job promotion or job shift stage, schools can continue to provide relevant training and information. Employees may return to school to upgrade their skills and credentials for moving to a

higher level job either in their own firm or with a new employer. Employers may look to the educational experiences of their current employees when filling particular job openings from within their organization.

How well are schools now serving these functions for various subgroups of jobs, such as those that are usually filled by high school graduates, or by college students?

To answer these questions, we surveyed a nationally representative sample of 4078 employers in 1983. We designed a sample based on the list of jobs held by the young adults who had been included in an earlier nationally representative survey of individuals. We chose a probability sample of jobs held by workers from different sex, race and educational attainment strata, and we surveyed the employers of these workers with questions about the specific job held by the sampled worker. Since we used the third and fourth followup surveys from the National Longitudinal Survey of the High School Graduating Class of 1972 to produce the list of jobs from which we drew our sample of employers and jobs, our procedure yielded a national probability sample of jobs held by young American workers in the approximate age range of 22 to 25 years old. The final achieved sample of 4078 employers represents a seventy-five percent response rate. Missing cases were primarily due to faulty addresses or firms that were no longer in business, rather than refusuals by sampled employers who were able to contact.

The Career Preparation Stage

We collected information from employers on the most important worker qualifications needed to successfully fill different jobs. This information is useful in discussing the school's role at the career preparation stage.

Table 1 and Figure 1 show the percent of employers who rate each of 16 worker qualifications as very important, depending upon the education level of the job, the sex composition of the job, and the sector (public or private) of the job. For ease of presentation, pecentages are shown for private sector male jobs in three categories of education level of the job, with adjustment factors given that are to be added to the percentages for estimates of percentages in the public sector or for female jobs. For each firm, the education level of the job was determined by the educational attainment of the majority of the incumbents at that job <1>, and the sex designation of a job was determined by the sex of the majority of the incumbents of that job <2>. The adjustment factors are the unstandardized regression coefficients from a multiple regression equation where a particular worker qualification is the

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<1> A job at the "high school" level is one where at least fifty percent of the current workers in that position in the sampled firm had no more than a high school diploma; a job at the "some college" level is one where at least 50 percent of the workers had some college but had not attained a college degree; and a job at the "college degree" level is one where the majority of current workers had attained a college degree. The educational distribution of current job incumbents was estimated by the manager or personnel official who completed our survey in each of the sampled firms.
<2> A "male job" is one in which at least fifty percent of the current workers are male.

dependent variable with three independent variables for the educational level of the job, the sex composition of the job, and the job sector (each with possible values of zero and one).

The following results emerge from these analyses:

1. The educational level of the job is strongly related to the importance employers assign to different worker qualifications. Table 1 shows regular trends in the percentage of employers who judge each trait to be very important. The relationship of job traits and job educational level is stongest for advanced academic skills: more than one half of the employers judge "advanced readers" to be very important for college level jobs compared to 13 percent of employers for high school level jobs, and more than one third expect workers to be "excellent at math" for college level jobs compared to 9 percent of employers who expect the same trait for high school level jobs.

2. For jobs that are usually filled by high school graduates with no college experience, employers do not expect a high level of reading or math skills. But they do require good work habits and attitudes such as being "dependable -- coming to work regularly and on time," having the "proper attitudes about work and supervisors," and being "good team members and able to get along well with people." Employers do expect a certain minimum of academic skills in high school level jobs and some ability to learn new things quickly, but these aspects are much less important than workers' proper attitudes and are much less important than for jobs at higher education levels.

The relative importance of good work habits over other talents for high school jobs is seen clearly in Table 1A, which presents employers' judgments of the "most important" quality they look for in new workers. Dependability is the quality most frequently given top rank by employers for high school jobs, but it is much less frequently ranked in the top position for higher level jobs. "Proper attitudes" is also frequently mentioned as "most important," and it is also more frequently cited for high school jobs than for higher level jobs. Reading ability and math ability are not judged by employers to be among the "most important" qualities for high school jobs or for jobs at other educational levels.

3. Being a "quick learner" is more important than advanced levels of math or reading or having "specialized knowledge" at each job level. Table 1 shows that employers place high value

on a worker's ability to learn new things quickly, especially for higher level jobs. But even for jobs usually filled by high school graduates, being a "quick learner" is about as important as basic literacy and math skills and much more important than more advanced reading and math skills.

4. "Specialized knowledge" grows in importance to employers with the educational level of the job, but there are a significant number of high school jobs where specialized knowledge is ranked as the most important quality (see Table 1 and Table 1A). In particular high school jobs, such as clerk-typist positions and construction trade jobs, specialized knowledge is the most important worker quality desired.

5. The qualities of "manual dexterity" and being "methodical" are the only ones in our list that are more in demand by employers for high school level jobs than for jobs at greater educational levels, as shown by the trends across the rows of Table 1 and 1A. But even for high school jobs, these qualities are less frequently judged to be very important than work habits of dependability, proper attitudes, and being good team members, or other abilities in math or literacy.

These results are consistent with other recent surveys of employers that used smaller non-probability samples (Committee for Economic Development (CED), 1985; National Academy of Sciences, Panel on Secondary School Education for the Changing Workplace (NAS), 1984). Those surveys report that, for entry-level positions, employers want high school graduates who are responsible, dependable, and willing and able to learn new skills for the job (CED, 1985, 17-19) in addition to looking for sound work habits and positive attitudes in new hires. Employers are reported to require core competencies in use of language and computational methods (NAS, 1984, 17-27).

How well are schools preparing students to meet these job requirements? Our survey evidence suggests that employers of new high school graduates have greater difficulty finding new workers

with the desired work habits than finding new workers with the required core academic skills. A small minority of recent high school graduates do not possess the needed academic skills for high school level jobs, but our evidence suggests that the absence of proper work habits and attitudes in new workers is an equal or more important problem for employers of workers in high school level positions.

Not many employers reported serious difficulties in finding qualified job candidates. Those who did found jobs that required some college or college graduates to be most difficult to fill successfully. When we asked employers "how difficult is it to find the kinds of new employees you need," 8.7 percent answered "often difficult" and 23.3 answered "sometimes difficult" for a total of 32 percent with difficulties. When asked "for which jobs is it most difficult to find the kinds of workers you need, employers reported most difficulties filling jobs that required education beyond high school graduation. Only about seven percent of employers reported difficulties in filling jobs that required high school graduates, whereas about 17 percent of employers reported difficulties in hiring for jobs at higher educational levels.

When we specifically asked about worker deficiencies in reading and math, a significant minority of employers reported serious problems. To the question, "how often have you found it necessary to redesign or simplify the reading requirements of jobs because of weaknesses of your workers in these areas," 13.5 percent of

employers answered "always," "often" or "sometimes." To the question "how often have you set up your own instruction in basic reading and math skills to fill learning gaps in your own workers," 17.8 percent of employers answered "always," "often" or "sometimes." To the question "how often do you find that recent high school graduates do have the reading and math skills needed to work here," 11.8 percent answered "seldom" or "never."

Table 1B shows, however, that employer problems in finding workers who have the desired work habits are at least as severe as their finding workers who have the needed reading and math skills. Table 1B is based on employer responses to the question "how many of the applicants you see for (the job name) do you think have the most important quality you are looking for." The table shows the percent of employers who report that "many," "most," or all of their applicants have the quality that they judge as most important. There is no evidence in Table 1B that it is more difficult to find many good applicants with reading or math ability than with proper attitudes, dependability or who can work as good team members. In fact, reading ability is the worker quality that employers have least difficulty in finding for jobs usually filled by high school graduates.

Improving high schools' role at the career preparation stage.

The results from our employer survey indicate that high schools fail to provide a significant minority of high school graduates (perhaps 10 to 20 percent) with the minimum reading and math

competencies required in most jobs at this level, and that high schools fail to at least as large an extent to provide experiences that incubate the basic work habits and attitudes in graduates that employers rate as very important.

Accordingly, competency testing as a condition for promotion in the earlier grades and for graduation from high school should be helpful if additional remediation instruction is provided for the students who are falling behind the minimum levels at each grade. Employers are not looking for very advanced levels of reading and math skills for their high school level jobs, so school programs that bring all graduates to a minimum competency in core academic skills will meet employer needs. We need to develop the specific remedial instruction programs and organizational support systems to achieve this goal.

Our survey indicates that there are a few high school level jobs where specialized vocational skills developed in schools would be highly valued by employers. For most high school level jobs, a general ability to learn new things is viewed by employers as more important than specialized knowledge. The implications are that vocational education programs will be helpful to prospective employers and employees if they are carefully targeted to positions that are plentiful in the local area where employers are looking for specialized knowledge.

Whether schools can do a better job in fostering the work attitudes and habits desired by all employers is another question.

Several analyses of the adolescent stage of human development in modern society have pointed to the absence of frequent opportunities for young people to take responsibility for tasks that are needed and valued by the adult world. Schools, where young people spend most of their time, provide few chances to practice responsible roles (e.g., Coleman, 1970, 1972). According to this view, as long as schools continue to offer only classroom-based "preparations" for later responsible roles rather than actual student experiences in assuming real responsibility, the prospects will be limited for developing more self-disciplined and responsible individuals in schools. In fact, some suggestions for reforming high schools include adding "service" opportunities in the adult world as required educational experiences during the adolescent years (Boyer, 1984; Coleman, 1974). In addition, the percent of students who hold part-time jobs before high school graduation has been growing in recent years, although the school does not usually play a role in obtaining or supervising these job experiences.

A different view is that the traditional student role has important obligations for attendance, homework and learning tasks, as well as opportunities for leadership in extra-curricular activities, that could be better utilized as occasions to socialize good work habits and attitudes. The current problems in many high schools of poor student attendance and poor relations between students and staff are exactly the problems that employers wish to avoid in filling their jobs with high school graduates. We need new incentive and motivation systems in high schools that will give

students better training in the habits of good attendance and timely completion of required tasks, which are desirable traits for both schools and employers. We will cite some recent attempts in this direction in the next section of this paper.

The Job Candidate Stage

We also asked employers what methods they use to find applicants from outside the firm to fill job openings. Each employer reported how frequently each of ten recruitment methods was used to fill a specific sample job position. Table 2 and Figure 2 present the results using the same format we used in the previous section. The following findings have implications for the role of schools at the job candidate stage.

1. Formal recruitment methods are more frequently used to get candidates for college level jobs (school placement services, professional organizations, private employment services and media ads) -- while other methods are more frequently used for high school level jobs (public employment services, community groups, unsolicited "walk-ins", and union referrals). These patterns are observed by reading across the rows of Table 2, or by comparing the adjacent bars of Figure 2.

2. Informal methods of recruitment are frequently used in finding candidates for jobs at all educational levels, especially unsolicited "walk-ins" who arrive without the employer's knowledge of how they learned about the job, and the use of current employees to recommend their friends and acquaintances. This can be observed by a comparison between rows of Table 2 and between categories of Figure 2. While these methods are among the most important to employers for all job levels, they are reported to be especially important for finding the person who is actually hired for high school level jobs. This result is shown in Table 2A by the percent of employers who rate each method as most important for filling their sample job.

3. School placement services are among the most frequently used and most important methods in recruiting for college level jobs, but this method is among the least frequently used and least important methods for high school level jobs. When employers do use school services in recruiting for high school

level jobs, it is usually for office-clerical positions, filled by female high school graduates.

In cannonical correlation analyses of our survey data reported elsewhere (McPartland and Dawkins, 1985), we find that employer recruitment methods are tailored to both the education level of the job and the particular worker qualifications that are most important in the job. We find that we account for about one and one-half times as much variance in the recruitment methods used by employers when we include in the equation their ratings of 17 job traits (discussed in the previous section) as well as the education level and sex composition of the job. We interpret this result to mean that employers are usually not only recruiting candidates for the general abilities they associate with specific education levels and sexes, but they are frequently searching for candidates with specific job related skills that are now accurately signalled by educational credentials.

These results show that schools play a limited role as a formal method of recruitment at the job candidate stage, since school placement services are infrequently used by employers to find candidates for most high school level jobs. But we should consider the potential of the school to serve as an informal mechanism of information about job openings. Recall that walk-ins and referrals through friends are frequent sources of job candidates, especially for filling high school level jobs. In further analyses of our data reported elsewhere (McPartland and Dawkins, 1985, 50-53), we find that black workers are often deprived of useful informal information and contacts about job openings when the jobs are predominantly filled by whites and when the informal networks of information are racially segregated rather than racially mixed. Schools attended by blacks could open access to more useful informal channels of information about job openings by providing information about firms and jobs dominated by whites as well as blacks. School desegrega-

tion could help to accomplish this by providing all students with desegregated informal information channels about job openings. There may be other functionally equivalent methods of passing information to minority students about job opportunities that white students now find out about more frequently. We need to examine existing links that counselors and school staff maintain to job information sources to come up with better ideas about how to provide more equal access to useful informal job information.

Improving high schools' direct role at the job candidate stage.

Employers are not disposed to spend much time or money to recruit candidates for most high school level jobs. The inexpensive and most convenient methods dominate recruitment for high school level jobs, including use of public employment agencies, unsolicited walk-ins, and referrals from current employees. The more costly or time consuming methods -- media ads, private employment services, professional organizations and school placement services -- are generally used mainly for jobs at higher education levels. High school level jobs are recruited for by the use of school placement services only for positions such as office typist, where the high school program and recommendations can be very directly tied to the specific desired job talents (such as office and typing skills).

Apparently employers can get enough qualified candidates for most high school level jobs by doing nothing more than placing a job opening sign at their establishment and passing the word to their current work force about the opening. Employers who do more seem to

need specific talents that are not widely held by most high school graduates, or to have easy access to pools of job candidates provided by inexpensive agencies such as community groups or public employment services.

For high schools to play a more frequent formal role at the job recruitment/job search stage, they must be especially convenient and provide inexpensive, reliable, useful information about candidates' skills on job relevant traits. We will discuss these implications further in the next section.

The Job Entry Stage

We also asked employers what information they use in selecting whom to hire from the pool of candidates from outside their firm. Employers reported how frequently they used each of eight potential sources of information to hire a new worker for a specific sample job opening. Four items of education information are included in the list: education level or type, grades in school or college, recommendations from school or college, and reputation of school or college. Table 3 and Figure 3 summarize these survey results in the same formats we have used earlier. Table 3A presents the distribution of employer responses to a different question that asks which source is most important when actually deciding which outside applicant to hire. The following results are relevant to the role of the school at the job entry stage.

1. Recommendations from previous employers are used more often and are more important than education information in

making hiring decisions, especially for jobs usually filled by high school graduates and those with some college but no degree. Table 3 and Figure 3 show that "employer recommendations" is the only criteria used by the majority of employers in filling jobs at the high school and some college levels. For college degree jobs, employer recommendations and "education level or type" are the most frequent criteria. The use of "education Level" for college jobs means that the credential of having completed a college degree is used as a primary screening device at this level. Table 3A shows also that "employer recommendations" is by far the most important selection criteria for jobs at the level of high school or some college, and "employer recommendations" is second only to having the proper educational credential for college level jobs.

2. Education information appears to be important in hiring decisions primarily as a "credential" used for general screening. Little stock is placed in grades, faculty recommendations, or school reputation either in frequency of use or in importance in making the final selection of whom to fill the job. At the high school level, no piece of education information is either frequently used or very important. While all types of education information are used more frequently for jobs at higher education levels, only the education credential as measured by "education level or type" is frequently seen as most important for actually filling the jobs calling for some college or a college degree.

3. It appears that personal interviews are used as an important source of information in making the final hiring decision. We see in Table 3A that the "other" category was almost always used to indicate the importance of the personal interview.

4. Test results are used for about one-fifth of the jobs at each level, with tests being somewhat more frequently used and more important for jobs at the intermediate or "some college" level. These results are consistent with other surveys of the use of tests for employment (Friedman and Williams, 1982).

This set of results supports our earlier findings that academic skills are not the primary job trait that employers are looking for, especially in jobs usually filled by high school graduates. Since most employers don't care about high levels of math or language competencies, they do not attend to grades received in school or

other academic-linked recommendations or reputations in making their decisions.

Employers do care about good work habits and attitudes for high school level jobs, but information from schools is either seen as not highly relevant to these traits or as difficult to obtain in sufficient detail. Apparently personal interviews are used as an important selection criteria for these purposes. Employers apparently also use the general level of educational attainment as a signal of a person's maturity and personal habits, with the general belief that individuals can be ranked on qualities such as persistence or reliability according to the educational credentials they have worked for and achieved.

For higher level jobs where employers often have an interest in hiring individuals with specialized knowledge, the type of education (such as major field) as well as the credential indicating educational level is probably of high importance in the final decision. Tests are sometimes used as well to gauge the job-specific knowledge a candidate possesses, especially for intermediate level jobs.

Improving the role of high schools at the job entry stage.

Employers would probably use education information more in their selection process if it were relevant to more of their high priority job qualities and if it were more convenient to obtain. For jobs usually filled by high school graduates, this means (a) information relevant to work habits as well as to basic academic skills, and (b) information that is very inexpensive in time or cost to obtain.

Several examples of students behavior during the high school years could help an employer rate an individual's dependability, work habits, and ability to work well in groups. These high school behaviors include regular on-time attendance at class over the high school career, membership and leadership positions in extra-curricular activities and teams, and noteworthy achievements in academic and non-academic pursuits. Currently such behaviors are not part of the school information that employers can routinely access and use in their recruitment and selection of new workers.

A recent cooperative experiment between schools and businesses in Boston and Baltimore and some other cities exemplifies how the high school could provide useful contacts and information for the recruitment, selection and hiring process. The plan in Baltimore "hopes to guarantee a job to any city high school graduate who has an 85 percent grade average and a 95 percent attendance record. Those who qualify will receive a jobs 'passport' under the plan, and will get special consideration for jobs at the 107 local companies that have committed themselves to the plan" (Baltimore Sun, November 4, 1985, D1). The school superintendent believes about 400 students would qualify this year and more in succeeding years. Since the Baltimore public schools may graduate over 7000 students in a typical year, the current plan will directly benefit a small fraction (about 5 percent) of graduates. But the idea has the merit of creating a formal record, in the students' possession (a "passport"), of behaviors including non-academic performances such as good attendance that can be used in seeking employment.

Better educational information may also be made more accessible for jobs that call for specialized knowledge that students gain in specific courses in high school or two-year colleges. Employers do not have the time or resources to use course information from schools or community colleges or other post-secondary preparatory programs. We need to find timely, reliable and inexpensive methods to enter more useful detailed information about an individual's educational experiences into the employment process for jobs at the level of high school or some college.

The Job Promotion Stage

We also asked employers to focus on jobs that are filled by promotions or transfers from within their organization, and to answer a set of questions about selection criteria that are similar to the questions we asked about outside hires, including the use of different kinds of education information. For many of the employers, openings in the same sample job were filled sometimes from inside the firm and sometimes by outside hires. Table 4 and Figure 4 report the frequency with which employers use difference selection criteria in filling jobs at different education levels, and Table 4A gives the percent of employers who cite each criteria as "most important" in their actual promotion decision. Table 5 contrasts employer responses about sources of information for hiring from outside (entry) and hiring from within (promotion) for the same job. The following results from these tables are most relevant to the school's role in the employment processes.

1. Education information significantly declines in use and importance when jobs are filled from within compared to when jobs are filled from the outside, because the employer will ordinarily have a great deal of job relevant information on applicants who are current employees that is more useful than other education and school data. These results are evident in a comparison of the adjacent columns in Table 5 and in the comparisons of Table 3 with Table 4 and of Table 3A with Table 4A.

2. The education level attained remains an important screening criteria for promotions to jobs usually held by college graduates. More than one-half of employers continue to cite "education level or type" as a frequently used criteria for college level jobs filled from within the firm, and 10 percent report it is the most important promotion criteria at this level; thus the achievement of a college degree seems to be a necessary step to move into high level jobs within many organizations.

3. On the other hand, promotions to most jobs that do not require a college degree can usually be achieved by workers with reference only to their performance and standing in lower level jobs. For job ladders within firms that lead to promotions to positions that do not require a college degree, one's educational record is primarily useful for entry into the lower rungs of the career channels, not for decisions on who will move up through internal promotions. Promotion decisions at these levels are much more often based on performance, seniority, and training within the firm. This conclusion is based on the frequencies with which various criteria are cited in Tables 4 and 4A for promotion decisions.

4. There are often well-defined job ladders within a firm that connect a limited number of lower-level positions to particular higher level positions. Many times these job progressions exist because the on-the-job training received in one spot is particularly relevant to the tasks of the position at the next level. The existence and operations of such "internal labor markets" is a lively research topic in labor economics and occupational sociology, and is reflected in our data by the significant percent of employers who used the "other" category in Table 4A to write in promotion selection criteria related to the training experiences received in a job ladder sequence.

Implications for school's role.

Because most jobs below the college degree level do not require strong language or math skills but do emphasize good work habits and knowledge relevant to the firm's business and operations, individuals without outstanding academic records who are good workers prove themselves on the job and advance through a job career within the organization. But this will often depend upon having entered the firm in a job that is linked to an upward career ladder.

Current Conditions and Future Prospects

Our survey results suggest that the role of education is often very important for jobs that are usually filled by those with college degrees, somewhat less important for jobs filled by those with some college, and surprisingly unimportant for jobs usually filled by high school graduates. For jobs at the high school level, the current role of schools seems weak in terms of

(a) job preparation: academic skills are not among the most important traits that employers require, and other important traits are not trained in most high schools;

(b) job recruitment: high school placement services are not frequently used by employers as a source of candidates for their job openings;

(c) job entry: current education information from high schools is not very available, useful or important to employers in selecting whom to hire from the outside for their job openings;

(d) job promotion: accomplishments in school have little bearing on whom will be promoted in most firms to jobs that do not require a college degree.

There are some interesting current exceptions to these generalizations about the weakness of the high school role at different stages of the employment process. Specialized knowledge obtained in high schools is seen by employers as important preparation for some jobs (such as clerical and craft occupations), and employers do expect a minimum of competency in core subjects of literacy and math. And, high school placement services do appear valuable for a limited range of jobs (such as office work).

How can high schools play a more important general role in the future at various stages of the employment process? First, we need to develop improved ways of training the actual worker traits that employers require of high school graduates. New programs of remedial instruction to accompany recent higher standards for promotion and graduation should help guarantee that all graduates possess the minimum academic skills expected by employers. Ideas for incorporating new opportunities for students to practice responsibility during the high school years should be experimented with and evaluated, such as providing "service" requirements and experiences in actual adult work settings within the high school program. We also should clarify the areas of "specialized knowledge" that can be offered to high school students that will actually contribute to their job opportunities, or relevant skills in demand for many job openings.

At the job search/recruitment stage, we need to better understand how high schools may cut into the formal and informal channels most

frequently used to actually create the pool of candidates considered for jobs. Can job banks or job placement services be located or expanded in high schools to meet the needs of students and the timing and efficiency needs of employers? Perhaps these services could serve employers as a preliminary screening mechanism by providing immediate information on "dependability indicators" for students, such as good attendance records or leadership roles in non-academic activities.

Job-relevant information from high schools may be made more accessible to employers, no matter what other placement services are at the school. One example of this is the plan now being developed in a few cities to give employers job "passport" information on students covering academic and non-academic behaviors. These plans have the benefit of prior employer commitments to provide job opportunities. Can these notions be applied to a broader range of students and employers?

Our understanding of the problems of the current role of high schools in the education to work transition is further along than our ideas about how to improve the situation in the future.

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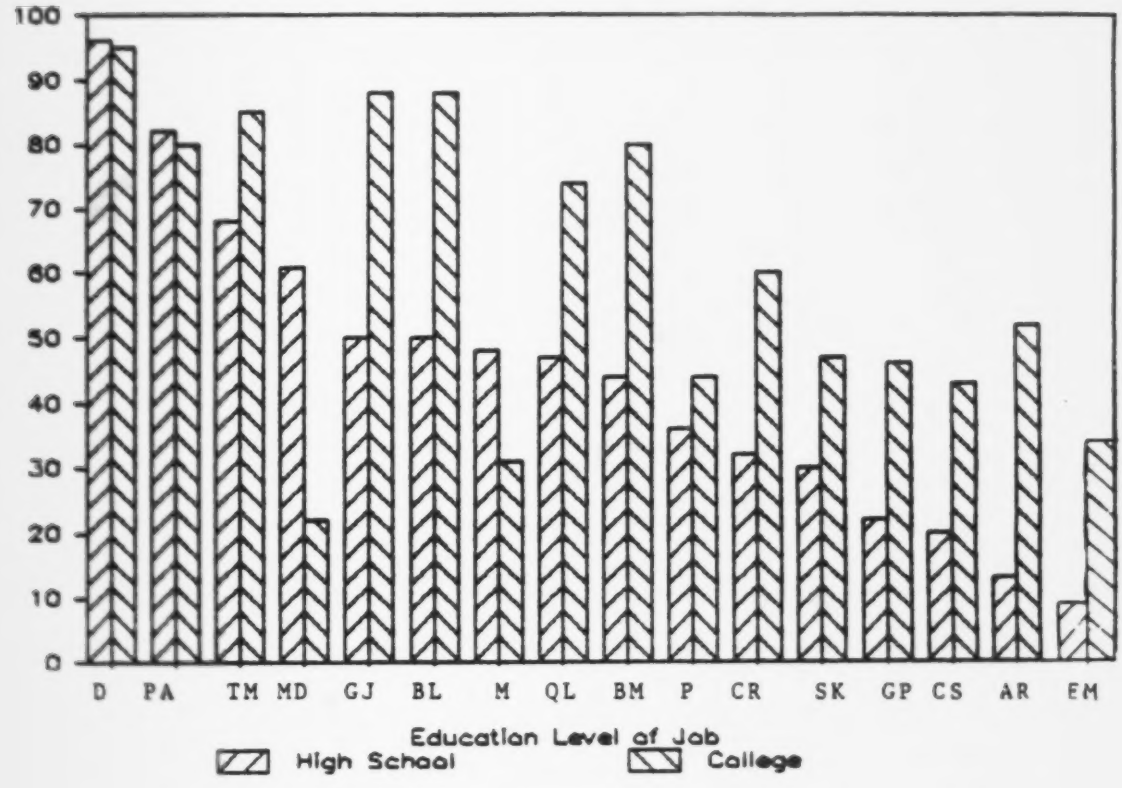
Figure 1

Employer Ratings of Job Traits for Private Sector Male Jobs



D = Dependable
PA = Proper Attitudes
TM = Good Team Member
MD = Manual Dexterity
GJ = Good Judgment
BL = Basic Literary
M = Methodical
QL = Quick Learner
BM = Basic Math
P = Permanence
CR = Client Relations
SK = Specialized Knowledge
GP = Growth Potential
CS = Can Supervise
AR = Advanced Readers
EM = Excellent at Math

Table 1

PERCENT OF EMPLOYERS WHO RATE VARIOUS WORKER QUALIFICATIONS AS EXTREMELY IMPORTANT, BY EDUCATION LEVEL OF THE JOB

(Sample size= 4078)

Worker Qualifications	Education Level of Job			Adjustment Factor* for:	
	High School	Some College	College Degree	Sector (Public)	Job Sex (Female)
Methodical	48	45	31	-3	+14
Manual Dexterity	61	44	22	-11	-6
Quick Learner	47	64	74	-5	+6
Basic Adult Literacy	50	72	88	+4	+14
Advanced Readers	13	28	52	+8	+3
Perform Basic Arithmetic	44	71	80	-11	+6
Excellent at Math	8	16	36	-3	0
Specialized Knowledge	30	34	47	+4	-2
Client Relations	32	48	60	+1	+12
Permanence	36	44	44	-9	-3
Growth Potential	22	28	46	-4	-6
Good Team Members	68	79	85	-2	+7
Proper Attitudes	82	84	80	0	+4
Dependable	96	95	95	-1	+2
Good Judgement	50	72	88	0	+5
Can Supervise	20	32	43	+2	-3

*Percentages shown are for Private Sector, Male Jobs. Add appropriate adjustment factor(s) to obtain other combinations of Sector and Job Sex.

TABLE 1A

PERCENT OF EMPLOYERS WHO SELECT EACH WORKER QUALIFICATION AS THE MOST IMPORTANT IN FILLING A JOB AT DIFFERENT EDUCATIONAL LEVELS

Worker Qualification	Education Level of Job		
	High School	Some College	College Degree
Methodical	5.2	3.4	1.7
Manual Dexterity	9.6	4.9	1.0
Quick Learner	9.1	11.4	9.9
Reading Ability	3.7	3.2	2.7
Math Ability	3.5	4.1	2.2
Specialized Knowledge	14.1	23.1	37.2
Client Relations	7.8	7.5	8.9
Permanence	0.9	1.0	0.5
Growth Potential	0.5	1.7	3.2
Good Team Member	5.0	5.3	3.9
Proper Attitudes	11.9	11.2	7.6
Dependable	21.3	12.1	4.4
Good Judgment	2.9	6.6	10.6
Can Supervise	1.3	1.5	2.5
Other	3.1	3.2	3.7
(Sample Size)	(1112)	(412)	(406)

TABLE 1B

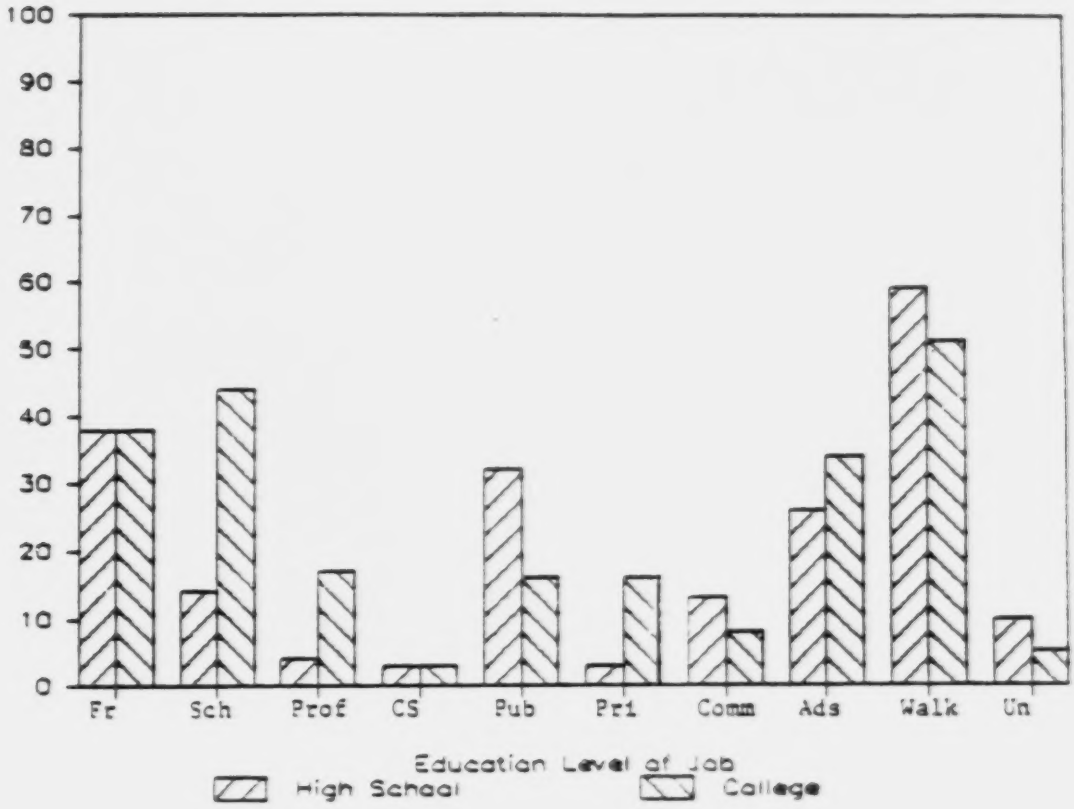
FOR EMPLOYERS WHO SELECT EACH WORKER QUALITY AS MOST IMPORTANT, PERCENT WHO REPORT MANY APPLICANTS HAVE THE QUALITY, BY EDUCATION LEVEL OF THE JOB

Worker Qualification	Many Applicants Have Quality	
	All Jobs	HS Jobs
Methodical	54.5 (79)	47.5 (59)
Manual Dexterity	56.2 (133)	67.3 (110)
Quick Learner	38.3 (170)	28.5 (102)
Reading Ability	81.8 (66)	72.1 (43)
Math Ability	62.5 (64)	55.0 (40)
Specialized Knowledge	70.1 (388)	57.7 (156)
Client Relations	43.9 (148)	39.7 (88)
Permanence	*	*
Growth Potential	*	*
Good Team Members	59.8 (92)	59.8 (57)
Proper Attitudes	50.2 (205)	46.8 (137)
Dependable	45.9 (305)	53.6 (244)
Good Judgment	53.0 (102)	45.5 (33)
Can Supervise	37.8 (29)	*
Other	50.9 (57)	45.7 (35)

* Less than 25 cases

Figure 2

Employer Recruitment Methods for Private Sector Male Jobs



Fr = Friends of Employees
Sch = School Placement
Prof = Professional Organizations
CS = Civil Service
Pub = Public Employment Serv.
Pri = Private Employment Serv.
Comm = Community Groups
Ads = Media Ads
Walk = Walk-ins
Un = Unions

Table 2

PERCENT OF PRIVATE SECTOR EMPLOYERS WHO FREQUENTLY USE VARIOUS JOB RECRUITMENT METHODS FOR MALE JOBS WITH DIFFERENT EDUCATION LEVELS, WITH ADJUSTMENT FACTORS* FOR SECTOR AND JOB SEX

(Sample size= 3446)

Job Recruitment Method	Education Level of Job			Adjustment Factor for:	
	High School	Some College	College Degree	Sector (Public)	Job Sex (Female)
Friends of employees	38	37	38	-16	+1
School placement service	14	27	44	+2	+3
Professional organizations	4	8	17	+3	-1
Civil service	3	4	3	+34	-3
Public employment services	32	24	16	+4	-1
Private employment services	3	10	16	-5	0
Community groups	13	12	8	+10	-1
Media ads	26	34	3-	-4	-5
Walk-ins	59	52	51	-15	+8
Union referrals	10	6	3	-1	-4

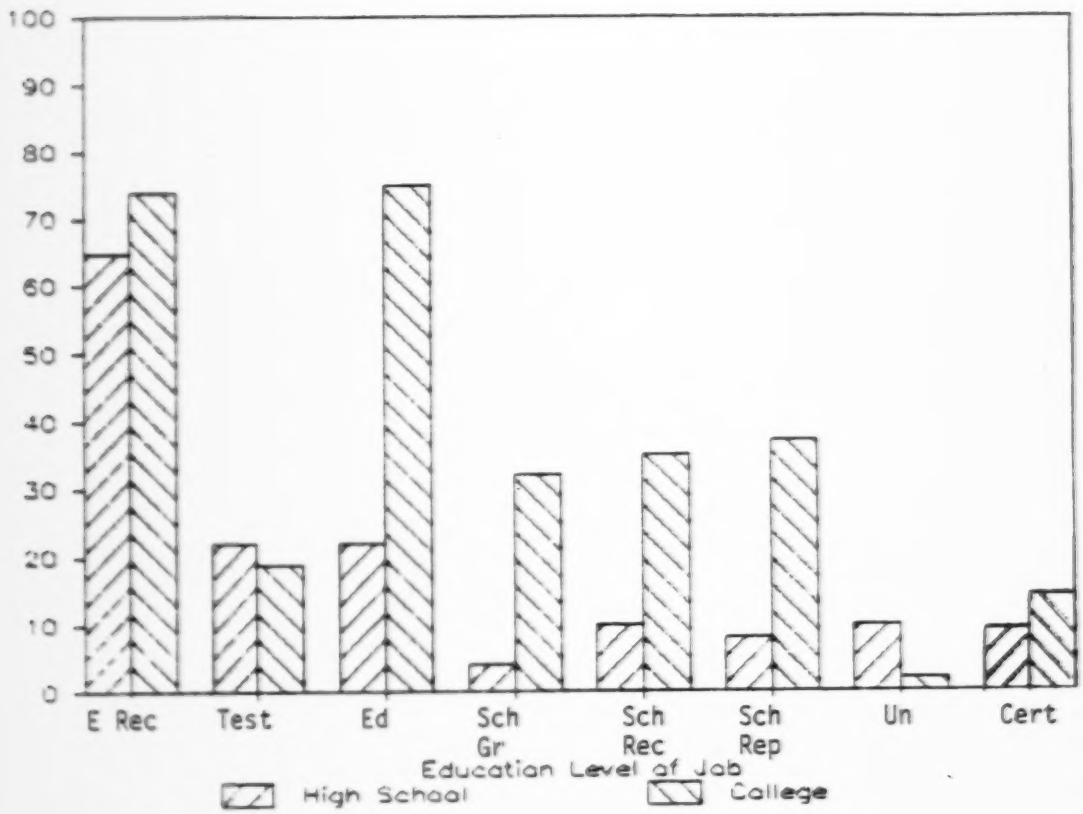
TABLE 2A

PERCENT OF EMPLOYERS WHO REPORT EACH RECRUITMENT METHOD AS THE MOST IMPORTANT IN FILLING A JOB AT DIFFERENT EDUCATION LEVELS

Recruitment Method	Education Level of Job		
	High School	Some College	College Degree
Friends of Employees	25.0	17.4	19.4
School Placement Service	3.8	10.6	22.4
Professional Organizations	0.9	2.3	4.5
Civil Service	2.8	4.5	3.0
Public Employment Services	16.0	6.1	5.2
Private Employment Services	1.9	4.5	9.7
Community Groups	0	0.8	0
Media Ads	13.2	22.7	17.9
Walk-Ins	26.1	15.2	9.7
Union Referrals	4.3	1.5	0
Other	6.0	14.4	8.2
(Sample Size)	(468)	(132)	(134)

Figure 3

Employer Section Criteria for Private Sector Male Jobs



Rec = Employer Recommendations
Test = Test Results
Ed = Education Level or Type
Sch Gr = Grade in School or College
Sch Rec = Recommendation from School or College
Sch Rep = Reputation of School or College
Un = Union Membership
Cert = License or Certification

Table 3

PERCENT OF EMPLOYERS WHO FREQUENTLY USE VARIOUS
SELECTION CRITERIA FOR ENTRY JOBS WITH DIFFERENT EDUCATION LEVELS

(Sample size= 3446)

Selection Criteria	Education Level of Job			Adjustment Factor for:	
	High School	Some College	College Degree	Sector (Public)	Job Sex (Female)
Employer recommendations	65	68	74	0	+2
Test results	22	26	19	+22	+9
Education level or type	22	39	75	+21	+6
Grades in school or colelge	4	15	32	+3	-1
Recommendations from school or College	10	19	35	+5	+5
Reputation of school or College	8	20	37	-2	+2
Union membership	10	4	2	-1	-4
License or certification	9	12	14	+8	+5

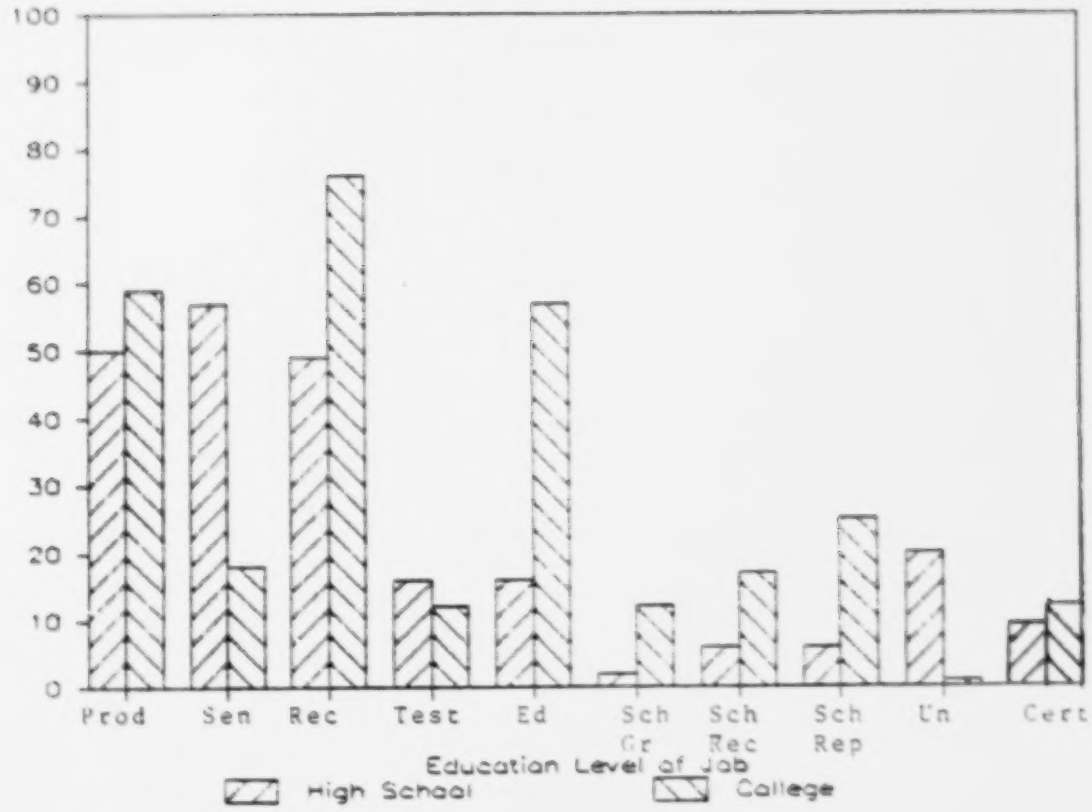
TABLE 3A

PERCENT OF EMPLOYERS WHO CITE EACH INFORMATION SOURCE AS MOST IMPORTANT WHEN THEY ACTUALLY DECIDE WHICH OUTSIDE APPLICANT TO HIRE FOR A JOB AT DIFFERENT EDUCATION LEVELS

Selection Criteria	Education Level of Job		
	High School	Some College	College Degree
Employer Recommendations	49.0	39.7	29.1
Test Results	9.8	14.5	6.0
Education Level or Type	6.8	9.9	31.3
Grades in School or College	4.4	3.8	1.5
Recommendations From School or College	4.6	6.1	7.5
Reputation of School or College	0.2	0.0	0.0
Union Membership	3.9	3.8	1.5
License or Certificate	2.0	3.8	1.5
Other (Personal Interviews)	19.0	20.6	23.1
(Sample Size)	(458)	(131)	(134)

Figure 4

Employer Promotion Criteria for Private Sector Male Jobs



Prod = Written production/sales record

Sen = Seniority List

Rec = Recommendations from Employees

Test = Test Results

Ed = Education Level or Type

Sch Gr = Grades in School or College

Sch Rec = Recommendation from School or College

Sch Rep = Reputation of School or College

Un = Union Membership

Cert = License or Certification

Table 4

PERCENT OF EMPLOYERS WHO FREQUENTLY USE VARIOUS SELECTION CRITERIA FOR PROMOTION JOBS WITH DIFFERENT EDUCATION LEVELS

(Sample size= 2368)

Selection Criteria	Education Level of Job			Adjustment Factor for:	
	High School	Some College	College Degree	Sector (Private)	Job Sex (Female)
Written production/sales record	50	60	59	0	+11
Seniority list	57	38	18	-5	-3
Recommendations from employees	49	65	76	+6	+6
Test results	16	21	12	+20	+6
Education level or type	16	26	57	+22	+10
Grades in school or college	2	8	12	+3	+3
Recommendations from school or college	6	10	17	+7	+6
Reputation of school or college	6	8	25	0	+3
Union membership	20	11	1	-5	-9
License or certification	9	7	12	+9	+5

TABLE 4A

PERCENT OF EMPLOYERS WHO CITE EACH INFORMATION SOURCE AS MOST IMPORTANT WHEN THEY ACTUALLY DECIDE WHO TO PROMOTE FROM WITHIN FOR A JOB AT DIFFERENT EDUCATION LEVELS

Selection Criteria	Education Level of Job		
	High School	Some College	College Degree
Written Production/Sales Record	25.3	21.6	19.8
Seniority List	21.0	9.3	2.1
Recommendations From Employees	20.4	23.7	27.1
Test Results	4.9	8.2	3.1
Education Level or Type	3.4	8.2	10.4
Grade in School or College	0.0	0.0	0.0
Recommendations From School or College	0.3	1.0	1.0
Reputation of School or College	0.0	0.0	0.0
Union Membership	2.3	2.1	0
License or Certification	0.9	2.1	2.1
Other	21.6	23.7	34.4
(Sample Size)	(348)	(97)	(96)

Table 5

A COMPARISON OF SELECTION CRITERIA USED FREQUENTLY FOR ENTRY OR PROMOTION JOBS* BY EDUCATION LEVEL OF THE JOB (Private Sector Male Jobs)

(Sample size= 1806)

Selection Criterion	Education Level of Job					
	High School		Some College		College Degree	
	Entry	Promotion	Entry	Promotion	Entry	Promotion
Recommendations from employers	62		67		74	
Production/sales record		48		58		61
Seniority list		64		43		23
Recommendastions from employees		47		66		79
Test results	22	15	27	23	21	11
Education level or type	22	16	39	27	77	53
Grade in school or college	4	2	16	8	34	10
Recommendations from school or college	11	6	22	11	37	17
Reputation of school or college	9	6	24	8	39	26
Union membership	8	22	5	13	2	2
License or certification	10	8	14	6	15	11

* Entry Jobs are those where at least 50 percent of the openings are filled by new hires from the outside. Promotion Jobs are those where at least 50 percent of the openings are filled from within by promotions or transfers.